

A Work Project presented as part of the requirements for the Award of a Master Degree in  
Management from the NOVA – School of Business and Economics.

## **HOME DELIVERY OF SUPERMARKET TAKE-AWAY SERVICE**

Fábia Marisa Moreira Alves

30053

A Project carried out on the Master in Management Program, under the supervision of:

Professor Manuel Pedro Baganha

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Direct Research Internship

## **Home Delivery of Supermarket Take-Away Service**

### **Abstract:**

The Work Project presents the development of the business model, and operational and logistical processes associated to the creation of the home delivery service of Pingo Doce's take-away meals. The research about this particular theme was fulfilled with the intention of presenting to the company a complementary new service that would support the progression of the current business to adapt to an upcoming reality of different market needs. It endues the character of a Direct Research Internship as it was developed in collaboration with the company Jerónimo Martins, S.A., within the JM Academic Thesis Program (4<sup>th</sup> edition).

### **Keywords:**

Home delivery; Take-away; Supermarket; Operations;

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## **1. Introduction**

The Work Project presented lays under the format of a Direct Research Internship for the fact that it resorts to a practical challenge that the partner company aims to embrace. The main objective of this project is to build a theory through the analysis of a case study. Specifically, the intention supporting it is to create a successful model through the observation of current reality that can be replicated in the future, being important to safeguard that the object of study in this project is to present relevant questions regarding the introduction of supermarkets take-away' home delivery service and proceed with a primary evaluation of them. Although it is undeniable that there is no actual and irrefutable process for building theory from case studies, literature has developed the design of case study research, showing how to combine the steps of the building process, conduct the analysis and evaluate it. Thus, resorting to a practical case study is beneficial for the development of the Work Project not only because it truly emphasizes the real-world context, but also because “building theory from cases is likely to produce theory that is accurate, interesting, and testable” (Eisenhardt and Graebner, 2007). Particularly, this case is relevant since the resultant theory has not yet been formulated, as it is a pioneer business idea in Portugal, and, thus, the associated research gathers high significance.

## **2. Analysis Methodology**

The theme of the presented Work Project is the “Home Delivery of Supermarket Take-Away Service” referring to the take-away service of Pingo Doce, a branch company of Jerónimo Martins, S.A. It is crucial to preserve, in a first instance, that although it is inserted in the format of a Direct Research Internship, the work developed with the partner company was not settled as an intern labor character but rather as a research one, as the joint efforts developed were directed towards the attainment and analysis of company's information and data.

The theory building process followed a specific analysis methodology that can be summarized in four main stages: entering the field, with direct contact with the company and

definition of the theme in question, collecting and analyzing data, shaping hypotheses, and reaching closure. Throughout the development of the case study, a well-defined focus was maintained, however, various practical and theoretical issues arose and were tackled, which broadened the analysis scope of a single study to multiple levels of analysis.

The heart of the Work Project' development laid on the gathering of accurate and real data through an incremental approach, in order to attain validity for the upcoming theory. The data collection combined multiple methods such as field notes, customer surveys and observations, internal business reports, industry and competition analysis, and discussions with managers from significant departments, and it was the combination of these different information sources that created beneficial synergies to reach solid arguments and conclusions. In fact, the discussions represented the main source of information in the project's development since they constitute a data collection method of high efficiency regarding the gathering of rich, empirical data, from agents that are directly connected to the service and rally real experiences within the company and its services. In order to avoid the possible associated data bias that derives from personal arguments, the collection of data relied on approaching different informants who have different perspectives upon the subject, increasing the quality of the research.

In turn, it is relevant to consider that the theory building process of the Work Project rests on the contemplation of the case study in a small specific geographical area, namely Central Lisbon, and regards a short time frame, i.e., studies relevant questions regarding a business model to be implemented within current trends and circumstances, not pondering significant changes on the business and social environments. Hence, the Work Project unfolds in the analysis of the current market trends, as well as in the company's and customer's perspectives regarding the case study, later expanding into the description of the operational process that sustains the business model, counting with the formulation and evaluation of

hypotheses, with the intention of reaching a closure concerning the theory built along the analysis process.

### **3. Market Trends**

The last two decades have been strongly influenced by the extremely rapid development and adoption of new technological systems, and the food industry is a market that has been attracting high investment levels regarding new distribution channels. In fact, by 2016, the market for food delivery represented 1% of the total food market worldwide (Hirschberg, Rajko, Schumacher, and Wrulich, 2016), counting with high prospects of growth for the following years. More specifically, the online food-delivery market is estimated to increase at an annual rate of 14.9% between the years of 2018 and 2020.

Portugal is no exception to this trend. By 2017, the current value of the food-delivery market reached 230 million euros, amounting to an increase of 3% compared to the previous year. Plus, 21,2% of food delivery orders were placed through online channels, representing a growth rate of 20% when compared to 2016 (Euromonitor, 2018). It is possible to point out two main reasons for the current observed behaviour: the overall economic growth, which fosters customers' expenditures within a positive financial environment, and the convenience level that this service offers, easing the fast-paced lifestyle of consumers. Thus, it is undeniable that this rising trend of online food-delivery service has the potential to become a serious threat to the traditional food services, so that it is crucial to adapt to this new reality by implementing new distribution channels that comply with the current customer needs and preferences.

### **4. Pingo Doce's Perspective**

Pingo Doce is the Portuguese leader chain of supermarkets in the sector of food distribution, counting with 425 stores across the country, 38 in Central Lisbon. Its market position was solidified through its mission of maintaining a constant high level of trust in its

relations with its customers, combining high quality with low prices and providing beneficial food solutions. And it is in the food solutions branch that the company has an opportunity to increase its market presence.

Meal Solutions, the department responsible for the planning and production of Pingo Doce's prepared food, profits from a pioneer status as it was the first chain of supermarkets to introduce its own kitchens in store and, thus, provide distinct take-away services. Currently, the company holds a 50% market share<sup>1</sup> in the sector of prepared food that allied with the fact that it has its own industrial kitchens (Odivelas, Aveiro and Vila Nova de Gaia), on the contrary of all competitors, gives Pingo Doce a strong competitive advantage as its meals possess high customer awareness and uniqueness in their quality. Internally, the take-away service represents 2,5% of Pingo Doce's total sales, derived from an increase of 11% when compared to the homologous period of the previous year due to both attainment of new customers and growth in consumer's expenditure<sup>2</sup>.

Therefore, there are three main reasons for the investment in the home delivery service of take-away meals. Firstly, as the Portuguese economy has been increasing in the last years after its recession, followed by the growth of consumer's buying power, the catering sector has the ability to grow within the current home delivery trend, and Pingo Doce aims to benefit from this new market. In fact, even without the option of home delivery, in 2018, Pingo Doce's take-away service observed an increase of 5% in the expense per customer<sup>2</sup>, which translates the possibility of incrementing the service's total revenues by adding an innovative complementary service. Furthermore, as the consumer behaviour is shifting towards the adoption of solutions that ease the routine of daily life and chores, the implementation of the home delivery service would represent an effort to keep up with this new lifestyle trend and deliver higher levels of convenience to its clients. At last, and associated with the development of the catering market,

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<sup>1</sup> Source: Nielsen Report

<sup>2</sup> Source: Internal Report

the consumers that return to this sector expect that the market introduces innovative processes and offerings, so that Pingo Doce desires to present innovation in its service, distinguishing the company from the others in the sector.

All things considered, with the new service of home delivery of take-away meals, Pingo Doce's main objective is not so much to increase the profitability of its business, but rather intensify its customer's loyalty levels, combining an innovative service with the uniqueness of its offering, growing not only its market share but also the satisfaction levels of its customer population and the company's business visibility. Hence, Pingo Doce aims to be, in this case, a service leader, when it comes to its logistics management and competitive advantage, as it invests in providing a high value advantage associated with a low cost advantage.

## **5. Customer's Perspective**

Pingo Doce's objectives with the implementation of the home delivery service constantly prioritize the satisfaction of its customers. In 2018, approximately 52% of its clients bought at least one product in the take-away service, and from this population, the dominant age range of consumers is situated between 40 and 60 years old, being 46% of the take-away clients<sup>3</sup>, unveiling the truth that the innovation of the service has to also suit the preferences of a more traditional generation. So, to assure the maximum level of customer's satisfaction with the new service, it is crucial to analyze the consumer perspective upon it, so to better understand its perception regarding preferences, benefits, and disadvantages of such service. Thus, a brief customer survey was conducted in two different locations of Pingo Doce's stores, namely Ferreira Borges and Alvalade, in order to collect accurate consumer feedback within the distinct customer populations that each location possesses.

Counting with a customer population that, on average, frequently resorts to the take-away service of Pingo Doce, 70% of the respondents believes that offering a service of home

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<sup>3</sup> Source: Internal Report



delivery of take-away meals consists on a beneficial service. Plus, 54% of the respondents admits that would resort to this same service<sup>4</sup>. One can argue that the rate of acceptance of the service is in a low range, however, this phenomenon can be explained mainly by the current patterns of behavior of clients and the age group in which the respondents are inserted on.

The resistance showcased towards this additional service derives from multiple reasons. Firstly, most clients inquired live near the store, so having the meal delivered to a specific location implies an additional cost for the client (extra fee for the transportation), which the customer can avoid by purchasing the meal directly in the store. Secondly, there is still a significant preference for shopping in the physical store, whether to personally view and evaluate the offered meals or because moving to the store represents a moment of stress relief from the work environment or an opportunity to engage in social interaction. Plus, consumers that purchase take-away meals in-store do so as a part of the whole shopping experience destined to buy other household and grocery products. Moreover, the enjoyment of cooking at home is presented as a factor for such resistance, as well as customers being aware of other home delivered meal alternatives which are more appealing to their personal preferences, along with the remaining skepticism that is maintained in the population towards online services.

Nevertheless, the possibility of home delivery of these meals provides the customer with a higher convenience level alternative to fulfill its daily meals, as a part of the client population struggles with the level of fatigue that they attain at the end of a work day, or simply as a method to answer the need to satisfy the basic necessity of a meal.

## **6. Operational Process**

The implementation of the home delivery process of take-away meals involves multiple stages in its operational process<sup>5</sup>. At large, it focuses on a workflow between the customer's

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<sup>4</sup> See Customer Survey in Appendix for more information.

<sup>5</sup> See Figure 1 (Pingo Doce's Home Delivery Service General Workflow) in Appendix for more information.

order placement, in-store action (Pingo Doce's location), product transportation to the customer's destination, and subsequent payment for the service and followed customer support.

### **6.1. Business Model**

The home delivery service embraces multiple variables in its development, especially regarding resources management and customer's interaction with the service providers. Concerning investments, Pingo Doce does not want to own the distribution vehicles. Such strategy would mean additional costs with the acquisition and maintenance of vehicles and the human resources management (recruitment and training processes, performance evaluation and remuneration). It would also entail the development of fleet management capabilities that the company does not have. Thus, developing an in-house delivery system diverts from the characteristics of the supermarket chain and its objectives, so that outsourcing the home delivery service to companies specialized in such business is the alternative that best meets the company's interests. Hence, having to consider a third-party provider for this service, the company benefits from resorting to a different delivery system from the one it already partners with for the home delivery of groceries. Currently, Pingo Doce fulfils home delivery requests of grocery items through an outsourced transportation company that schedules the deliveries in slots of 2 hours. This business model does not match the conditions necessary for the sustainable functioning of take-away meals' deliveries as the orders concern food products that demand different care. Besides, customer's orders in this service emerge from needs felt in a short time anticipation period or even from impulse, that in order to effectively satisfy the consumer, it is essential to provide a service that conveniently delivers such requests and, therefore, Pingo Doce would profit from resorting to a third-party service of instant deliveries, which arrive to the client in short time and better quality.

In turn, as for the interaction between the consumers and the service itself, there are two main modalities within the outsourcing of the service: third-party company logistics with a

company-owned platform and fleet identity or full third-party service through its platform and fleet. To choose between both alternatives, it is crucial to analyze and evaluate the benefits and disadvantages associated to each one and, so, determine the option that best suits the company's goals and provides the greatest profitability.

Resorting to the use of third-party logistics however with a company-owned platform stands for fully operating with an outsourced fleet and service organization yet being presented as a service provided by Pingo Doce's brand (own order placement platform, and transportation vehicles with the company's logo). This option would translate in the opening of a new distribution channel of prepared food, being an innovative service that is able to strengthen customer loyalty and satisfaction. With an owned platform, the company would have the possibility to customize the process, not only by offering special promotions and including advantages for "Poupa Mais" associates (Pingo Doce's customer loyalty program), but also by adapting the process itself to the needs of its distinct customer populations. Plus, having a Pingo Doce's platform and fleet identity increases the brand image and its visibility. Nevertheless, to implement such model has a high investment level associated, especially with marketing expenditures, since this offer would need an extended promotion campaign, being a new player in the market, for the purpose of creating a customer base and a sustainable business outcome. Also, by creating a customer base, Pingo Doce would also face complex processes with bureaucracy regarding the current laws about customer data protection. Besides, in the event of failing to meet a point of service sustainability, the sunk costs associated with the withdrawal of the business from the market are substantially high, as well as this retreat would carry a significant negative impact on the company's image. Notwithstanding, to execute this project would strongly distinguish Pingo Doce from its competitors, establishing the company as a pioneer with its own platform and fleet identity, in a way that this first-mover advantage unveils the accurate strength and benefit that this option carries.

On the other hand, Pingo Doce may also fully outsource the system of home delivery, resorting to new-delivery players through their own platform and fleet, that are responsible for the ordering and delivery tasks, having, thus, to only focus on the production, quality and availability of its meals. In this service sector, the company can count with many alternatives currently established in Lisbon to choose from, such as Uber Eats, Takeaway.com, NoMenu, SendEAT, Glovo, Central Menu and Comer em Casa, from which it is important to evaluate the business conditions, constraints and benefits in order to determine which one best fits the brand's interests and development of this new service. To use a third-party company platform implies a lower level of investment, having solely to promote the company's presence on their platform, reducing the subsequent marketing expenditures while benefiting from their high level of brand recognition. Thus, Pingo Doce can benefit from a broad established customer base that involves consumers already accustomed to the order placement and delivery processes, in which they trust. This represents a true advantage for Pingo Doce since most customers strongly express an aversion to switching the platforms already used, which might hinder the business in the case of having an owned platform. Additionally, on the contrary of the previous option, the impact in the case of removing the service from the market would not be so significant and visible for the brand image, with close to zero associated costs. However, new-delivery players do not enable the customization of the process, which would not benefit Pingo Doce as for reaching its different consumer's population needs. Also, by offering its prepared food options through these platforms ends up not having such a wide impact concerning business differentiation when compared to featuring its own platform, as it would be showcased as only one more option next to competitive alternatives that might attract the preferences of potential consumers. Plus, in the event of aiming to pursue new markets and introduce the home delivery service in different cities that could represent a profitable opportunity, Pingo Doce, by resorting to a fully outsourced system, would be dependent on the

reality that the company in question had to be already established in that particular location, restricting Pingo Doce from a high flexibility character in its business development possibilities.

Hence, as there is no strictly correct answer for which business model to select, it is relevant to detail the associated stages of the process regarding both alternatives, since one of the solutions to this dilemma might be to enter the market through a completely outsourced service, analyze its business impact and, afterwards, evaluate if it is beneficial to implement its own platform.

## **6.2. Customer's Order Placement**

The first action in the process is the customer's order placement, which triggers the entire process and it is one of the only steps in which the consumer directly interacts with the service. Thus, there is the need to create a platform that enables this same interaction to happen. As the service's sector is developing towards a more technological reality, Pingo Doce should follow this current trend and present an online platform, incorporated on both existent website and mobile app, through which the client would effectively place his order. Besides, relying on an online service provides a high level of convenience to the customer population, which might by itself attract new customer segments, namely younger and technology friendly clients, that value the implementation of an innovative service. At the same time, resorting to an online order placement process is fully compatible with both business models' alternatives previously presented, easing the development of the service regarding its logistics.

The customer's online order placement workflow can easily be defined by four stages: firstly, the customer accesses the online platform, either through the website or the mobile app; then he inserts his postal code so that the order is directed to the nearest location as an effort to assure the highest efficiency level possible concerning delivery time and assortment availability; then, the consumer decides which products and quantities desires to order among

the different offers available; and checks-out by specifying his personal data, such as name, address, contact and, if wanted, fiscal number, as well as the data for the payment<sup>6</sup>. Surely, it is essential to safeguard that in the event of resorting to a fully outsourced service, the process of order placement must compel with the service platform conditions, which is believed to assure a similar workflow, where its own software efficiently matches the consumer's data with the most suitable location to answer the request.

However, although it is undeniable that offering an online platform to place customer's orders is the preferred option, there are still customer segments that present a preference for an offline alternative. In fact, according to the survey answered by Pingo Doce's Take-Away customers, the favorite method of ordering is the mobile app, with 67% of answers, yet, 18% would choose to resort to ordering through a telephone call<sup>7</sup>, unveiling a customer segment that does not regard the use of advanced technology for their services as such an appealing alternative. And, as the company displays a character of tradition associated to its brand, the offering of this specific alternative is also compatible to its business objectives, enabling the most technology conservative consumers to similarly resort to the home delivery service.

Nevertheless, to provide this alternative imposes challenges to the whole process. Placing an order through a telephone call is not compatible with the business model alternative of fully outsourcing to a new-delivery player as the company would be using a third-party platform for the order's placement, having no possibility of customizing and controlling its system. Therefore, only in the case of having a company-owned platform with third-party logistics would the alternative of offering an offline option be viable, as Pingo Doce would control the system's procedure. Thus, there would be a different workflow<sup>8</sup> for this alternative from the online ordering. The customer would contact the nearest location through the provided

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<sup>6</sup> See Figure 2 (Customer's Online Order Placement Workflow) in Appendix for more information.

<sup>7</sup> See Customer Survey in Appendix for more information.

<sup>8</sup> See Figure 3 (Customer's Offline Order Placement Workflow) in Appendix for more information.

telephone number, place the order of the desired products and specify his personal data for delivery and billing purposes. This implies that the payment for the service would have to be done offline upon the delivery act, as well as the arrangement for the transport and delivery would have to be scheduled by a store employee as an intermediary between the client and the third-party delivery service. Note that, associated with this ordering method is a possible waiting time regarding the answering of calls, which is dependent on the in-store current capacity to tackle this task.

### **6.3. In-store Operations**

After a customer confirms the placement of his order, the request is directed to the nearest location through the matching of postal codes<sup>9</sup>. When the order is placed through one of the online channels available, it appears on a tablet installed inside the take-away counter of a Pingo Doce location and the employee at that station accepts it. By doing so, the program instantly notifies the transport service and a courier is designated to pick up the order and provide the product's transportation to its destination. In the case that the order is placed through an offline communication channel, namely telephone, there is the need for the take-away employee to receive the order and manually insert its details and customer data in the program, that will afterwards notify a courier. Nonetheless, this option is only available if the company chooses to use its own platform, in which the process can be customized, with a transportation service outsourced.

Having accepted the consumer's order, the employee will prepare the products requested by filling special containers that fit the designated quantity for individual doses with the prepared food, and then print the respective bead with the product's description and bar code discriminated, ready for shipment. In turn, the preparation stage of the process also counts with the possibility of incurring in a period of waiting time since it depends not only on the

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<sup>9</sup> See Figure 4 (In-store Operations Workflow) in Appendix for more information.

answering capacity of the take-away counter resources, but also on the current consumer's movement in that same service, which in-store shopping experience should not suffer any disruption. Commonly, each one of these products must be invoiced in a Point of Sales, however, in the home delivery service such action is not necessary as the system automatically processes the sale<sup>10</sup>. Namely, when the order is placed through an online channel, the payment is accomplished upon the customer's check-out and confirmation of the request, which triggers an internal process of matching the order with the respective sale and invoicing in Pingo Doce's account, so that, when it is dispatched, there is already a registration of the physical and monetary associated movements. The respective invoice document is directly sent to the customer's email address so to provide him with a proof of payment for the products and service. The exception to this process is the case of an order placed through an offline channel, in which the request and shipping is not directly associated to a sale. The sale is only fulfilled upon the posterior payment, on the delivery act, so the actual invoice of the products is accomplished just in that same moment. This process will be possible through a matching between the merchandise shipped and the actual payment by the correspondence of the number associated to the shipment, which task is performed automatically by the software involved in the home delivery platform.

Thus, the ordered products are ready to be dispatched and the courier has the responsibility of picking them on the specific location. The dispatchment of orders, however, is not an universal process, so that it depends on the Pingo Doce stores' layout. Currently, the supermarket chain counts with 38 stores in Central Lisbon with take-away service, through which it is possible to observe two different cases: the "take-away in" counter and the "necessarily integrated take-away" counter at the back of the store<sup>11</sup>.

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<sup>10</sup> See Figure 5 (Invoicing Workflow) in Appendix for more information.

<sup>11</sup> See Figure 6 (Pingo Doce Stores' Layout) in Appendix for more information.



The first scenario consists on the event that the take-away service is provided in a specific place that does not oblige the customer to actually enter the store, i.e., the take-away counter is located at the entrance of the store, sometimes combined with the restaurant service of Pingo Doce. This is the layout most desirable for the home delivery service to be successful as the take-away counter, located at the entrance, is the designated dispatchment place for couriers to pick up their orders, in a method that minimizes the time spent in-store and avoids the actual entrance of the courier in the store, which would hinder the time and simplicity associated to the service's performance. In the recent years, stores have been remodeled or opened with the new layout in an effort to adapt to modern necessities and feature the take-away service in a more appealing way so to increase the revenues that come from one of the main forces of the supermarket chain, currently counting with 18 stores with this new layout.

Though, in Central Lisbon, there are still 20 stores that have a different layout in which the take-away counter is placed at the end of the store, which obliges the customer to enter the store in order to purchase its products. Although they are planned to be remodeled, in the meantime, it is crucial to establish a solution that eases the process of shipment in these locations. To consider the option of having the courier entering the store and himself picking up the orders in the take-away counter increases the time associated to the service, as well as thickens the workflow of the process by adding extra variables to consider such as the behavior of the courier in the store and the shopping experience of other consumers. Hence, it would be beneficial for the supermarket to have a designated area near the entrance of the store where the orders would be dispatched, minimizing the time associated with the delivery service. In some locations, the customer support counter could be used for this effect, compelling that the products requested would be moved after being prepared and identified with their bar code to this specific location in the store's entrance, which translates the need for having a staff member available to perform this task. To note that, in a first instance, Pingo Doce does not intend to

recruit or designate a specific employee to the fulfilment of this process, so that it would be a subject to manage internally through the availability of the current labor force. To move the orders to the cashiers to be latter picked up is also not a beneficial solution as it can result in the disruption of the in-store shopping experience of customers as they would possibly perceive to be overtaken by a separate service, hindering the company's image and customer satisfaction level. So, in the stores that do not count with a customer support counter at the entrance, there would emerge the need to create a space for this purpose or utilize a different available option.

In both scenarios, the courier in-store action would be performed under the same conditions. Upon arrival, the courier would present his smartphone associated to the service that contains the number of the order to match to the specific requested products, so that he could pick up the designated prepared food and proceed with its delivery to the destination. It is only through this matching of order's codes that the courier has the permission to have his items dispatched, so that the shipment can be confirmed and successfully delivered.

#### **6.4. Transport**

Upon the acceptance of a customer's order by the take-away service, a courier is notified to move to the respective store location in order to proceed with the home delivery service. It is possible to state that the transportation process<sup>12</sup> is similar between whichever business model Pingo Doce chooses to apply in its service as the transport system is fully outsourced in both presented alternatives. By standard, the courier will park his vehicle in a designated area near the entrance, enter the store and move to the dispatch area. As noticed previously, this designated dispatchment station depends on the specific layout of the store, however, it is, in all cases, chosen with the intent of promoting efficiency and speed in the fulfilment of the service. At this stage, the courier is able to pick up the respective order's prepared food and is ready to move to the customer's delivery location. Though, the possibility of having to go

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<sup>12</sup> See Figure 7 (Transport Workflow) in Appendix for more information.

through a waiting time is undeniable, as the case of being present at the location before the order is prepared is an imminent reality that urges to be surpassed since it hinders the speed of the request's fulfillment.

The selection of which courier is designated to fulfill the displacement request and which route he has to take in order to reach the product's final destination is organized through a proper outsourced software that considers the current physical locations of the staff members as well as the most advantageous routes to take between the specific stores and customer's delivery place, in order to provide the fastest and most convenient delivery service. Commonly, the objective is to have a delivery time of 15 to 20 minutes, between the store and the consumer's location, and organize the deliveries in a distance of 3 to 5 km.

In turn, the transportation service is performed under specific conditions that aim to provide the best quality, in both the service and product. Firstly, the service would have a fixed delivery schedule in which the consumer could have his meal delivered between 11 a.m. and 9 p.m.. This schedule is determined concerning customer ordering behavior, which, from in-store observations, is possible to conclude that lunch orders start upon 11 a.m., and until 9 p.m. so to be compatible with the working schedules of all stores of the supermarket chain. Then, Pingo Doce's home delivery couriers would count on having adequate safe equipment for driving, a smartphone to present their routes and requests, a vehicle that best suits the delivery needs when it comes to time management and freedom of movement, namely motorbikes, and a certified thermal bag with proper dimensions to fit the product's measures and, at the same time, maximize the number of orders that can be delivered in proximity so to increase the profitability of the business, as well as with thermal protection in order to guarantee that the quality of the prepared food is the best possible at the moment it is delivered to the final consumer.

It is important to note that the transportation service is not considered to be a process in which Pingo Doce has high responsibility and control over since this stage is outsourced to a

third-party provider. The software used in the courier's route planning belongs to the service provider, as well as the human resources management, regarding couriers' recruitment, performance evaluation and remuneration, and the physical capital management, namely vehicles and associated delivery equipment.

## **6.5. Payment Methods**

The payment for the service is a transaction that is defined in the beginning of the process when the client is placing his order and specifying his personal data as well as the payment information. However, it is analyzed as a final stage of the workflow since it can be accomplished at the delivery moment, as the effective sale is fulfilled.

If Pingo Doce chooses to use a fully outsourced platform and delivery service from a third-party provider, the payment method must comply with the demanded conditions of that entity. Commonly, when resorting to such services, the payment is accomplished as an online transaction validated before the actual delivery is finished. Upon the check-out of an order placement, the customer has to introduce his payment data, choosing to pay by an electronic payment, either via credit card or PayPal, and confirm his payment so that his request is valid and communicated to the store. Since this payment is performed on an outsourced platform, it is directed to the third-party company's account, which has the obligation to transfer the payment to Pingo Doce. Then, Pingo Doce receives the actual customer's payment by, at the end of each period, doing a meeting of accounts, reckoning between account payables and receivables amongst both companies.

On the other hand, by implementing its own platform and having an outsourced delivery service, Pingo Doce can customize its process and present different modalities regarding the payment for the service. If the order is placed through the online platform, upon the check-out of the order placement and confirmation of personal data, the customer has solely the option to pay by an online payment, similarly to the usage of a third-party platform. The payment will,

therefore, be effectively charged in that moment. In turn, the viable method of payment for orders that are placed through the offline channel, namely a telephone call, has to be done through an ATM payment upon the delivery act<sup>13</sup>, as the payment has to be done also through an offline method. Even though it can still be considered the option of performing the payment in cash, this alternative arises as a complex process since the delivery fleet is not directly managed by Pingo Doce and it would involve a high level of treasury control. Thus, in order to provide the option of an ATM payment, the company would have to invest in the acquisition of portable automatic payment terminals for the couriers to carry with them during the home delivery routes and present them to the consumer when having a prior notification that that is the chosen method of payment. The offering of this possibility embodies a high expenditure level, both in the acquisition of the terminals and in the associated fees, yet it delivers a character of convenience and answers some customers preferences that do not perceive the online payment as a secure method. Nonetheless, as the order placement platform is owned by Pingo Doce, the customer's payment for the home delivery service and respective prepared food is performed directly to the company's account, in both online and offline payments. The outsourcing of the delivery service to a third-party provider is, latter, paid by Pingo Doce through a meeting of accounts, reckoning between receivables and payables, at the end of each period, according to specific criteria previously established upon the partnership agreement.

## **6.6. Customer Support**

As the home delivery service represents a new and separate service, it is important that it also provides a customer support system. This is a final informational flow on the supply chain, and it is beneficial not only to uphold customer needs and solve gaps in the global workflow, but also to obtain consumer feedback concerning the new service so to be able to improve it according to the client's preferences, and evaluate the current process. In managing

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<sup>13</sup> See Figure 8 (Delivery Workflow) in Appendix for more information.

a service, having a customer support platform is crucial since managing customers is as important as managing the store's employees. Clients are the key agents to trigger the whole process and they are the population that the service ultimately wants to satisfy. Besides, "handling complaints is an inexpensive means to isolate and correct service problems" (Levy and Weitz, 2012).

The customer support center in this service has to comply with the business model applied in its development, yet in agreement with a standardized customer service, with no distinctive treatment between consumers. In the case of using a fully outsourced platform, the consumer can resort to the active customer support channels of Pingo Doce if the issue is related to the products that were delivered. If the problem is associated to the transport conditions or to the platform itself, it is a responsibility of the outsourcing company since Pingo Doce has no ownership upon their assets. In turn, when resorting to an owned platform, there will be a designated area in the platform for customer support through which Pingo Doce will have direct knowledge concerning consumer's issues, as well as provide an evaluation mechanism through which customers can assess the quality of the service in a five-star grading system that adds up to an appreciation ranking. Nonetheless, if any complaint is related to the transportation conditions, it will be directed to the third-party provider to tackle and solve the issue. In the event of placing an order through an offline channel, namely telephone call, the customer can resort to any of the existing customer support channels, either through Pingo Doce's website or telephone number, which is also available for complaints regarding online orders. Pingo Doce's customer services not only answer and attempt to solve problems with the service and products delivered, but also can provide relevant information to consumers and answer their concerns, promoting a clarification bridge between the service and clients with more full and transparent informational flow.

## 7. Product Assortment

Pingo Doce's Take-Away has a vast menu of prepared food that customers can choose from and order according to their personal preferences. It counts with 73 different dishes from salads, to main courses and desserts. Currently, consumers can order these same offers in store or through a telephone call with 48 hours of anticipation and pick up the products themselves. The service of home delivery now analyzed aims to deliver prepared food in short time to the consumer's house, which obliges to create a suitable offer of assortment to the service. Upon the implementation of the service, the menu of take-away meals offered will consist on "Roast Chicken" ("Frango Assado"), "Duck Rice" ("Arroz de Pato"), "Meat Pie" ("Empadão de Carne"), "Codfish with Cream" ("Bacalhau com Natas"), and "Spiritual Codfish" ("Bacalhau Espiritual"). The choice for these particular dishes lays on the fact that they represent the best-sellers of the take-away service that, at the same time, provide options to please each client's personal taste between meat and fish meals. In fact, in 2018, 70% of the total customer's expenditure in take-away meals derived from the "Roast Chicken" and prepared food options<sup>14</sup>, circumstance that is supported by the customer's survey filled in-store, in which 59% of participants have preference for "Roast Chicken" and the remaining 41% chooses to consume prepared food, without considering to order any of the other available options. Furthermore, narrowing the offer to solely five alternatives benefits Pingo Doce in the management of the home delivery service as it would be in a start-up period, in which plenty variables are unstable as the consumer's acceptance level is yet unknown. Plus, this menu guides the customer behavior, being an effort to avoid that he navigates among a broad variety of prepared food, hindering the service workflow, and, simultaneously, assures that every location has the same offer, which is an imperative condition to have an homogenous offer so that consumers are not

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<sup>14</sup> Source: Internal Report

switching between locations to order a specific dish and enable every store to successfully fulfill every customer's order.

The meals offered in the home delivery service are no different from the meals already present in the take-away counters. Using fresh ingredients bought from a broad range of product suppliers, the food is cooked in Pingo Doce's central kitchen and moved to the logistics center that is responsible to distribute them to each store location. The process between production and arrival to the store is performed in the time space of one day, leaving the prepared food with still three days remaining of validity. Such long lasting freshness of the product is possible due to the conservation process that immediately refrigerates the food upon its production. The only time it is heated is at the consumer's location, so to promote the best product quality possible, and that represents the motive why the in-store operation of the take-away counter's employee is so short: he only has to separate the prepared food into individual containers with no process of heating or cooking the food at the moment. Nevertheless, this process applies only to the prepared food and Pingo Doce considers to exclusively offer cold prepared food, and not resort to regenerated food, so that all locations feature the same necessary inventory. In the case of the offering of "Roast Chicken", the supply chain behind its processing is mainly similar to the prepared food, differing only on the fact that it moves directly from the supplier to the logistics warehouse, and then distributed to Pingo Doce's locations with a lead time of 36 hours and an in-store storage validity of 5 more days, being only cooked in-store, on an average time of 30 minutes. This meal is the only exception that is delivered while hot and freshly produced, which signifies an urge to be delivered in a short period of time so to maintain its quality<sup>15</sup>.

Since it is the own company that produces the offered food, it is essential that in the offering platform, as well as in the item description, there is a specification of the ingredients

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<sup>15</sup> See Figure 9 (Supply Chain of Take-Away Meals) in Appendix for more information.



and possible allergenics, in order to provide the consumers with full and transparent information concerning the products they are purchasing and consuming. Besides, for internal stock management, the bar codes associated with the products intended for the home delivery service would still be associated to the same subcategory and article, yet with a difference that would distinguish them from the products sold in-store. This policy would enable a superior control over the inventory and sales, as well as provide accurate statistical data regarding the sales volume associated to the home delivery service.

All things considered, it is important to note that the inventory management of prepared food by each store must be planned with attention to the production capacity of the central kitchen, that is not the same for every dish, so that every meal included in the menu is available every day for delivery. In the event of a particular location running out of a specific offer, it has access to the home delivery service platform in which it can notify the stock-out of that product since the platform is organized by each location as the customer specifies his postal code upon the order placement. In addition, currently, the price of the prepared food is defined accordingly to its weight. With the objective of having an uniform and standardized price, the sale price to the public of the home delivery meals would be defined by individual dose, which amounts to an established weight of 300gr, so to avoid disruptions due to differences derived from weight discrepancies and keep the same price as the one practiced in store. The service of home delivery itself would be paid by a separate fee in order to cover the associated extra costs.

## **8. Outcomes and Recommendations**

Even though no empirical experience was conducted to accurately calculate and evaluate times and capacities regarding the operational process and logistics of the home delivery service, through the detailed portrait, it is possible to derive associated outcomes that can realistically be perceived as valid results from the service.

The home delivery of food products is a service that excels by managing to perform a whole process in a short time period. Since it deals with goods that have low shelf life time, in order to guarantee their quality, the delivery service must be, on average, accomplished in a time window no longer than 60 minutes (Hirschberg, Rajko, Schumacher, and Wrulich, 2016). All things considered, Pingo Doce's home delivery service of take-away meals, whichever business model is implemented, aims at an estimative of a total of 30 minutes to fulfill a customer's order from the moment it is placed in the platform. This time window can be distributed by three different main moments: approximately 10 minutes for the courier to move to the designated store location while the order is being prepared in-store, plus 5 minutes for the courier to pick-up the request in-store, and a final 15 minutes for the transportation of the order from the store to the customer's destination.

As no actual service was implemented, it is only possible to believe that Pingo Doce may be on the threat of cannibalization of in-store sales, since the new service offers an alternative where the customer does not have to move to the store, which might prevent him to incur in extra expenditures with grocery products purchased as an impulse buy. However, there can be also the opposite result in which the in-store sales do not change on behalf of this customer population, but rather the take-away sales volume increases from the increment of new consumers or the expense by consumer.

The home delivery service of take-away meals described is an innovative business in Portugal to which the customer adherence is an extreme dilemma. In the event of the service being well accepted and thrive quickly, there are many opportunities for Pingo Doce to grow, and challenges that will be imposed. After reaching a successful implementation of the service in Lisbon, with the development of the process and tackling of possible arising issues, the company is able to replicate the business model in other different cities that appear to gather all the necessary conditions for it to be a profitable service. Nevertheless, there is a constant need

to adapt the current business model to the individual characteristics of each location so to smooth the execution process.

Furthermore, with the expansion of the service network and business volume, the company will face an urge to enlarge its production and selling capacity, so it will have the need to increase its resources regarding the employees and central kitchen production capacity in order to intensify its response capacity towards a rising customer's demand. Alongside, consumer's demand will not only heighten in volume, but also in variety, which represents an opportunity for Pingo Doce to develop its service excellence. After the start-up period of the service and having successfully introduced it in the market, the offered menu has the possibility to expand and provide an assortment with more variety, counting with vegetarian or gluten free meals for instance, so to please distinct customer needs and preferences, investing in the increase of customer satisfaction with the service and in the positive development of the service's image.

Nevertheless, it is relevant to safeguard that despite a careful development of the service to maximize its profitability, it results in a service that has not a high level of rentability as the commercialized prepared food in the take-away counts with low revenue margins so that the company can be loyal to its practice of low prices. Adding a home delivery complement signifies an increase in expenditures, associated with transportation costs, and, simultaneously, a growth in revenues from customer's expenditures, and its profitability depends on a thorough balance between these two forces. A solution to increase the business rentability of the service is to offer a combined menu option that consists on a meal and a drink, for example, that itself is a product that counts with a high revenue margin. However, this alternative translates in a more complex offer to manage since it plays with a vaster assortment, hence it could be implemented in a future moment of having a more developed service workflow.

Even though the rentability of the business is a challenge for the company, to invest in the offering of such service emerges, for Pingo Doce, not with the objective of growing the profit of the company, but rather to enhance the shopping experience of the customers by providing a service of convenience associated to an already established culinary offer of success. Risking to not increase the company's business profit is of less importance in this scenario when compared to magnify the client's gratification and perception regarding Pingo Doce image and overall service, which constitutes the main goal of the company upon the implementation of this innovative service that pleases an up-surging trend of food consumption.

## **9. Conclusion**

The theory built from this specific study case resulted in a real-world context process, in which the analysis of its components was developed through observations and data of the actual running of the business and associated agents. To resort to an approach of building theory through data was undeniably the key to its success, by the assessment of empirical information and circumstances that molded the creation of the resultant theory and subsequent business model. The center of this Work Project revolved around the formulation of relevant questions for the introduction of this new service, and subsequent analysis and evaluation, fulfilling its main intention of developing the guidelines for the implementation of the service. Throughout the process, different hypotheses were shaped with the intention of answering to different alternatives. These hypotheses urge, in the future, to be empirically tested in order to evaluate which one better fits the business objectives, as well as is more appropriate to the company's characteristics. Nevertheless, it is crucial to note that the theory developed might face new challenges with the emergence of novelties regarding the real-world practices and business methods, which might disrupt the process created. Therefore, starting from the theory built, it is essential to analyze how it will still suit the new context, hence incurring in a process of adaptation so to maximize its suitability to upcoming realities.

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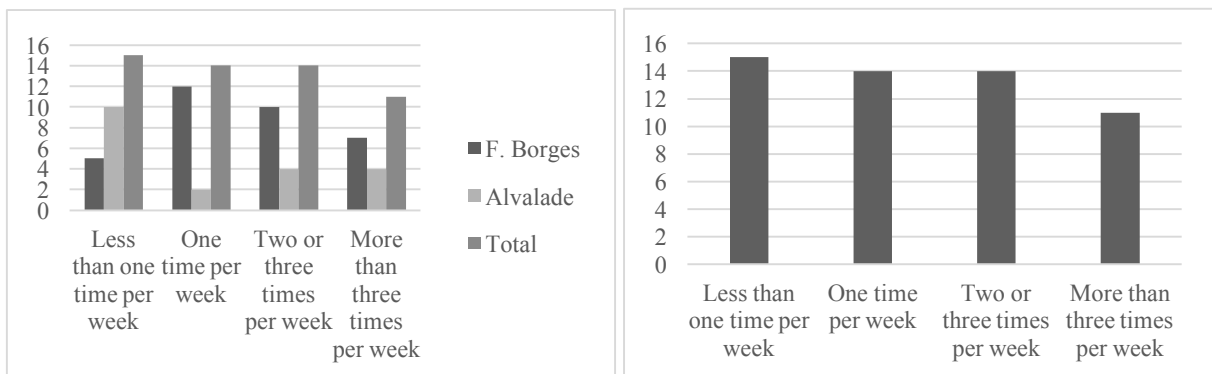
## 11. Appendix

### Customer Survey:

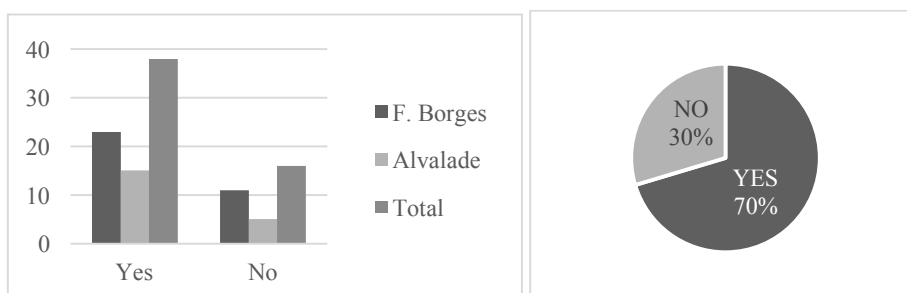
The customer survey was developed with the intention of better understanding the behavior and preferences of Pingo Doce's Take-Away consumers, as well as gather more accurate data concerning the acceptance of the proposed service model. The survey was performed in two distinct locations in Lisbon, Ferreira Borges and Alvalade, which count with significantly different consumer population's characteristics, mainly regarding age range (which is identified the mode of age range of the participants). The answering options and results are presented in graphs in both separated by location and global answers.

	Ferreira Borges	Alvalade	Total
Sample total:	46	22	68
No answer:	12	2	14
Participants:	34	20	54
Mode age range:	40-60	25-50	

#### 1. How frequently do you resort to the Take-Away service of Pingo Doce?



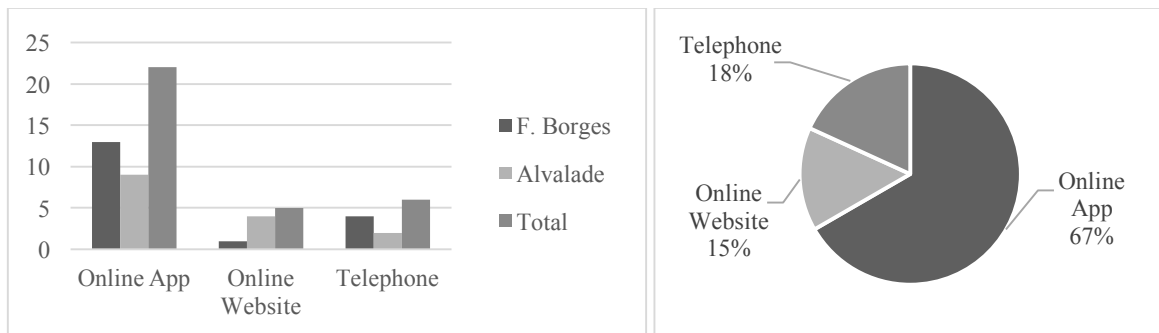
#### 2. Do you consider the home delivery of meals prepared in Pingo Doce's Take-Away a beneficial service?



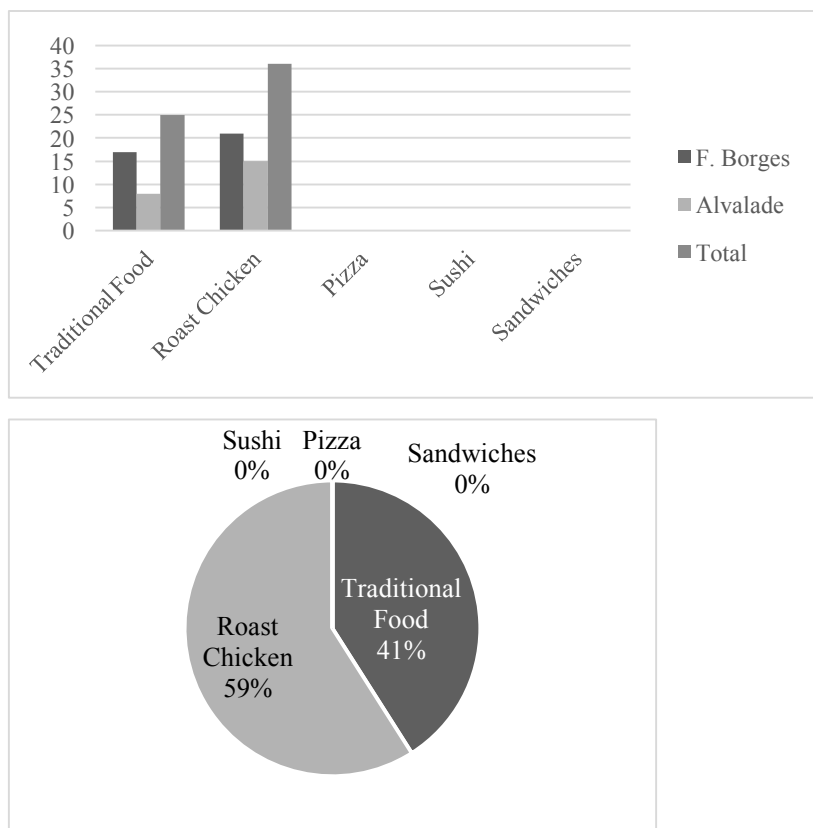
### 3. Would you resort to this service?



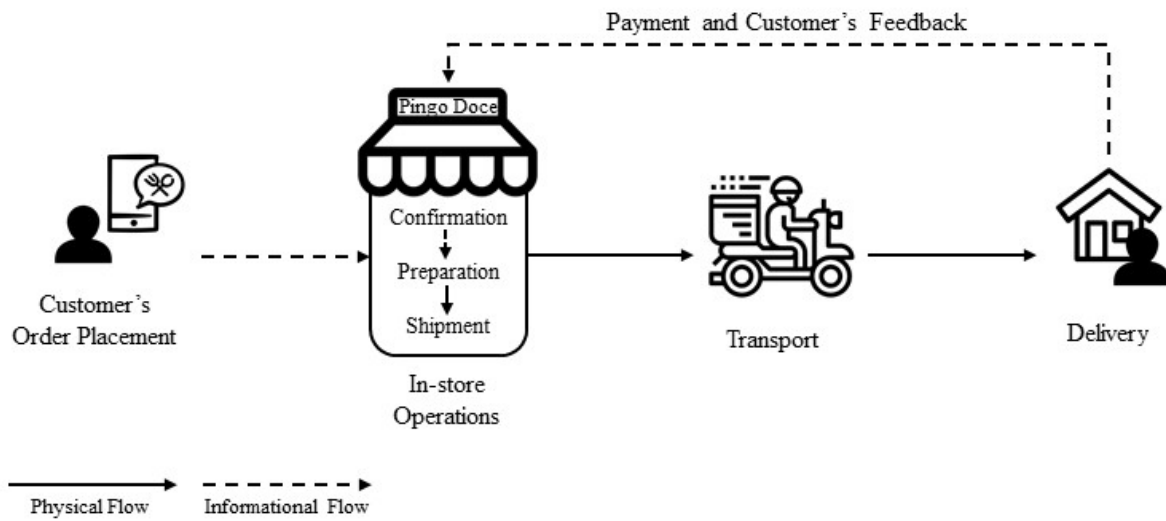
### 4. Through which channel would you place your order?



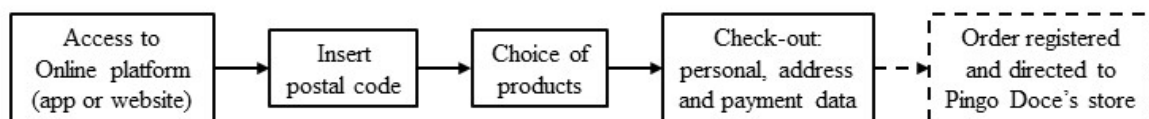
### 5. Which is/are the meals offered in the Take-Away that you have preference for?



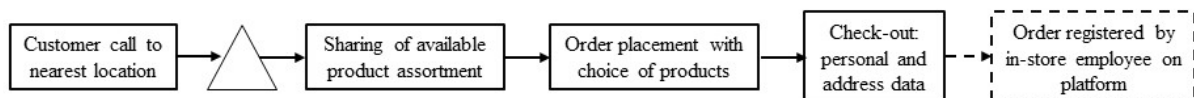
**Figure 1:** Pingo Doce's Home Delivery Service General Workflow



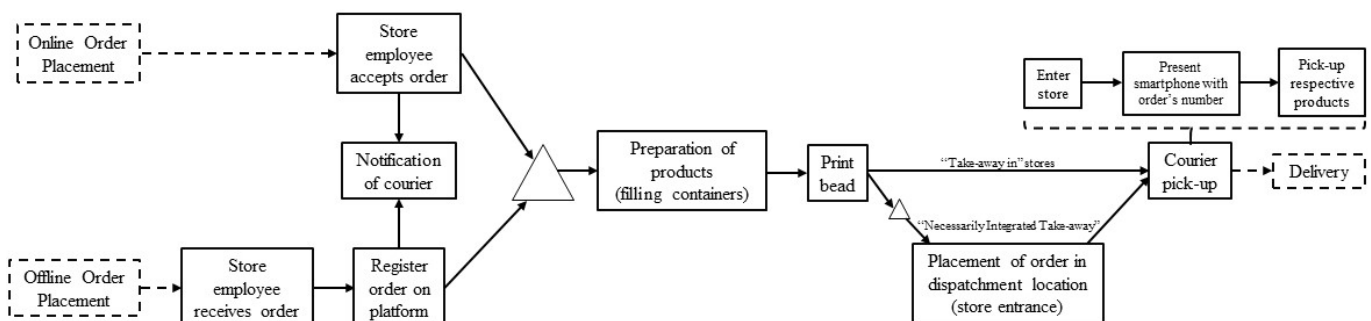
**Figure 2:** Customer's Online Order Placement Workflow – Owned Platform



**Figure 3:** Customer's Offline Order Placement Workflow

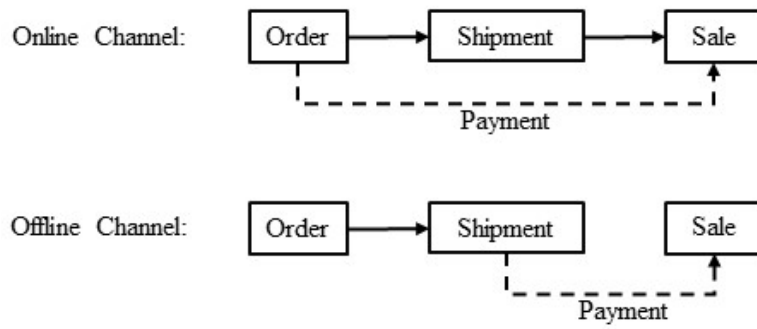


**Figure 4:** In-store Operations Workflow

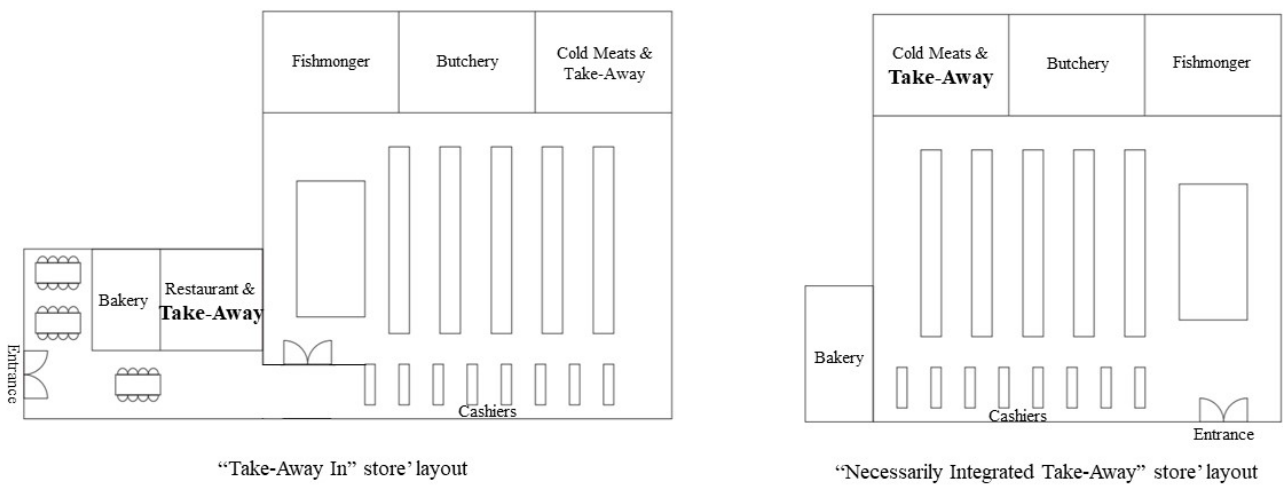




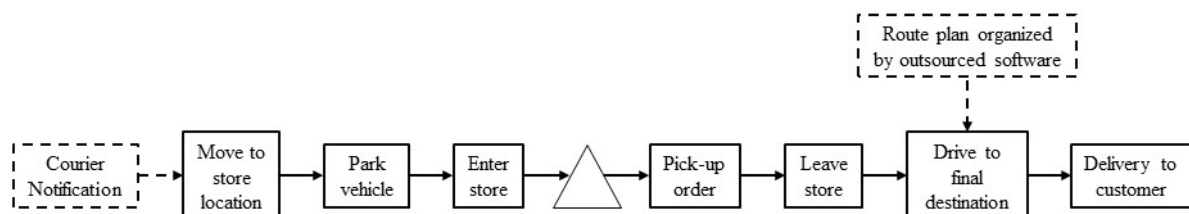
**Figure 5: Invoicing Workflow**



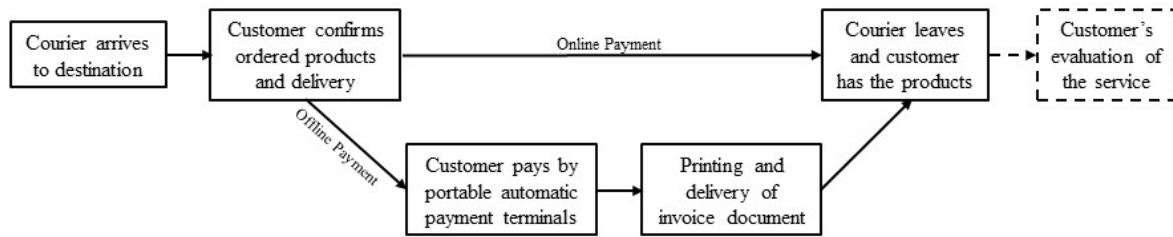
**Figure 6: Pingo Doce Stores' Layout (examples)**



**Figure 7: Transport Workflow**



**Figure 8: Delivery Workflow**



**Figure 9: Supply Chain of Take-Away Meals**

